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February 4, 1999

Magalie Roman Salas, Secretary
Federal Communications Commission
The Portals
445 Twelfth Street, S.W.
Washington, DC 20554

RECEIVED

FEB 4 1999

**FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY**

**Re: Advantage Cellular Systems, Inc.; Request for Waiver of Section
20.18(e) of the Commission's Rules; CC Docket No. 94-102**

Dear Ms. Salas:

Transmitted herewith, on behalf of Advantage Cellular Systems, Inc. ("Licensee"), and pursuant to §1.3 of the Federal Communications Commission's ("Commission") rules and the invitation of the Commission's Wireless Telecommunications Bureau in its December 24, 1998 Public Notice (DA 98-2631) entitled "Wireless Telecommunications Bureau Outlines Guideline for Wireless E911 Rule Waivers for Handset-Based Approaches to Phase II Automatic Location Identification Requirements," are an original and five copies of Licensee's Request for Waiver of Section 20.18(e) of the Commission's rules. The request contains a facsimile signature. The original signature will be filed with the Commission as soon as it is available.

Should you have any questions concerning this matter, please communicate directly with the undersigned.

Sincerely,

Michael R. Bennet

Michael R. Bennet

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**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Revision of the Commission's Rules)	CC Docket No. 94-102
To Ensure Compatibility with)	
Enhanced 911 Emergency)	
Calling Systems)	

To: Wireless Telecommunications Bureau

**Advantage Cellular Systems, Inc. Request for Waiver
of Section 20.18(e) of the Commission's Rules**

Advantage Cellular Systems, Inc. ("Licensee"), pursuant to § 1.3 of the Rules and regulations of the Federal Communications Commission ("FCC" or "Commission")¹ and the invitation of the Commission's Wireless Telecommunications Bureau in its December 24, 1998 Public Notice (DA 98-2631) captioned "Wireless Telecommunications Bureau Outlines Guidelines for Wireless E911 Rule Waivers for Handset-Based Approaches to Phase II Automatic Location Identification Requirements" ("Public Notice"), hereby requests a waiver of Section 20.18(e) of the Commission's Rules regarding Phase II enhanced 911 ("E911") services.

Licensee is a small, rural cellular carrier operating in the Tennessee 2-Cannon RSA and headquartered in Alexandria, Tennessee. Section 20.18(e) of the Commission's Rules requires that, by October 1, 2001, cellular licensees provide to the designated Public Safety Answering Point ("PSAP") the location of all 911 calls by longitude and latitude such that the accuracy for all calls is 125 meters or less using a Root Mean Square methodology (hereinafter referred to as the Automatic Location Identification or "ALI" requirement). The ALI requirement is applicable, however, only if (1) the administrator of the designated PSAP has requested ALI services and is capable of receiving and utilizing the data elements associated with the service, and (2) a mechanism for recovering the costs of the service is in place. 47 C.F.R. § 20.18(f). Absent a waiver, or the nonoccurrence of either of the two aforementioned conditions, Licensee will be required to meet the requirements of Section 20.18(e). Because Licensee is uncertain at this point in time as to whether it will be capable of meeting those requirements, it is requesting herein that the Commission waive Section 20.18(e) with respect to Licensee.

Licensee commends the Bureau for issuing its Public Notice regarding Phase II implementation. The Public Notice serves as a useful reminder to the wireless industry of the

¹ 47 C.F.R. § 1.3 (1996).

need to focus now on the steps needed to satisfy a distant implementation date. Unfortunately, because the October, 2001 implementation date is almost three years away, it is difficult for Licensee to know with certainty at this time whether it will be able to meet that deadline. However, for the reasons discussed below, Licensee doubts its ability to meet this deadline. Accordingly, it is requesting a waiver at this time.

Licensee is currently reviewing its options for providing Phase II E911 service. Licensee is considering both a network and handset based solution, each of which has distinct costs and problems associated with its use. Licensee's service area is sparsely populated (4 customers per square mile) and the cost of installing sufficient infrastructure to provide Phase II ALI to each of Licensee's customers would be exorbitant. Specifically, the cost of constructing additional cell sites to allow for triangulation capable of meeting the Commission's ALI requirement would be \$7,500,000.00. Additional cell sites would be required both in portions of Licensee's service area where towers are presently located too far apart to facilitate effective triangulation and along service area borders where directional antennas must be used in order to avoid interfering with cellular systems serving adjacent service areas. With respect to a handset-based solution, Licensee estimates the cost of upgrading or replacing existing handsets to be \$3,500,000.00.

The cost per subscriber of Licensee adopting either a network or handset-based solution will be approximately \$1,160 and \$540, respectively. Because Tennessee has yet to adopt a cost recovery mechanism,² and therefore this cost at present cannot be recovered, it must by necessity be passed onto Licensee's subscribers in the form of higher rates. Such a rate increase is significant, and will result in many subscribers dropping their wireless service. Ironically, if existing and potential consumers of Licensee's wireless services deem such services too costly as a result of a Commission mandate to deliver ALI by October 1, 2001, and therefore elect not to utilize such services, much of the anticipated public interest benefit of expanded E911 capability may be lost. Simply put, the public interest costs (in terms of public safety) of requiring Licensee to make the investments necessary to meet the Commission's stated deadline outweigh the public interest benefits of the increased accuracy of E911 available to those subscribers still able to afford wireless service.

Because Licensee has yet to receive a request for Phase II service from a PSAP,³ and because Tennessee has yet to adopt a cost recovery mechanism, it is premature for Licensee to be making any final decisions as to its technological approach to meeting Phase II requirements. With E911 technology evolving rapidly, Licensee should not be required to commit to a particular technology until it is certain that it will be required to implement ALI. Absent a waiver, Licensee may be forced to invest in a technology which may be outmoded before Licensee is even required to implement it! Indeed, to the extent wireless carriers are forced to make a decision now as to how to meet the ALI requirement, the Commission's rules are hardly

² While Tennessee law provides for retention of E911 fees, Licensee does not believe that as currently written it constitutes the cost recovery mechanism mandated by Section 20.18(f).

³ Licensee has contacted three of the eight counties in its service area concerning their E911 plans. Each county has stated that they lack both the financial resources to upgrade their systems to support wireless location technology and the manpower necessary to support this service.

“technologically neutral.”⁴ It is not technologically neutral to require that a choice between two competing technologies be made while one of these technologies is still in its infancy.

Requiring full compliance by October 1, 2001 for all handsets is also impractical. Such handsets are not expected to be widely available until next year at the earliest. Even then, Licensee cannot force its subscribers to purchase new ALI compliant handsets, nor can it force them to retrofit their handsets to comply with Section 20.18(e). Licensee can do so only by incurring the cost of changing out noncompliant handsets *at no charge to their customers*. The cost of doing so would be enormous. However, even offering to do so does not guarantee that all customers will make the effort of switching handsets. Manufacturers place the normal lifespan of a handset at four to five years. Accordingly, if ALI compliant handsets are not available until 2000, and assuming a normal rate of handset deployment, the massive deployment of such handsets envisioned by the Commission’s rules is unlikely to occur until 2004 *at the earliest*. A waiver of Section 20.18(e) is therefore appropriate *at a minimum* until December 31, 2003. Alternatively, a waiver making Section 20.18(e) applicable only to new handsets would also be appropriate.

At this point in time, it is uncertain when either ALI compliant handsets or the equipment necessary to retrofit existing handsets will be readily available. The issue of roamer compatibility with handset based systems has also yet to be satisfactorily addressed by equipment manufacturers. Given the uncertainty surrounding changeout of handsets and roamer compatibility, a waiver will clearly serve the public interest. Enforcement of the October 1, 2001 deadline on carriers utilizing a handset approach is simply premature at this time.⁵

Licensee supports the FCC’s efforts to facilitate the provision of enhanced 911 services to all Americans, and is fully committed to bringing the benefits of E911 to its subscribers.⁶ However, the E911 characteristics that are important to Licensee’s rural residents differ significantly from those desired by residents residing in urban, suburban and less rural areas served by other carriers. For example, ALI accuracy of the degree required by Section 20.18(e) may be critical to locating a 911 caller in a dense urban environment. For a caller in a service

⁴ The Commission has emphasized that its E911 rules are intended to be technologically and competitively neutral and has recognized concerns “that the effect of Section 20.18(e) might not be technologically and competitively neutral for some technologies that might be used to provide ALI, *in particular handset-based technologies* such as those using the GPS satellite system.” Public Notice at p. 1 (emphasis added); see *Revision of the Commission’s Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, Memorandum Opinion and Order, 10 CR 1090 (1997) at paragraph 124.

⁵ In the event Licensee selects the handset approach, Licensee may be capable of providing a higher degree of accuracy in exchange for delayed implementation. According to one handset manufacturer, a carrier using its technology can locate a caller within 90 meters, and within as little as 4-10 meters in an outdoor rural environment. Licensee would also commit to efforts to educate the public in the safety benefits of ALI compatible handsets.

⁶ As a cooperative owned entity whose members *are* its subscribers, Licensee is particularly cognizant of the importance of E911 to its subscribers.

may be critical to locating a 911 caller in a dense urban environment. For a caller in a service area such as Licensee's, however, where the caller is one of four subscribers within a one mile area and there may be only one road traversing that area, such a high level of accuracy is simply unnecessary. It would be like using a telescope to locate the Washington Monument; it is simply unnecessary.

Where subscribers are located within a reasonably close proximity to each other, Licensee has cell sites within sufficiently close proximity to triangulate. Accordingly, Licensee may be able to meet the October 1, 2001 Phase II ALI deadline with respect to the most populated portion of its service area. It is only with respect to the remote unpopulated or sparsely populated portions of Licensee's service area that meeting the October 1, 2001 deadline may not be possible. Moreover, even without advanced ALI technology, Licensee should be able to locate a 911 caller anywhere in its service area more quickly than a Phase II compliant urban carrier will be able to locate a high rise dwelling 911 caller.

In sum, requiring Licensee to meet the October, 2001 deadline for ALI compliance is impractical, unnecessary and will not serve the public interest. Handset technology has not evolved to the point where changing out existing handsets on the scale envisaged by the Commission's requirements is either practical or economical. Imposing on Licensee the costs of compliance with a requirement that is simply unnecessary in sparsely populated rural environments will not serve the Commission's stated goal of improving public safety. Ironically, to the contrary, imposing such requirements on Licensee is simply likely to drive customers away from Licensee's cellular service, thereby denying them the very public safety benefits that attract many consumers to take wireless service in the first place.

For the foregoing reasons, Licensee submits that the requested waiver is in the public interest.

Respectfully submitted,

Advantage Cellular Systems, Inc.

By



Harry W. Gassaway
General Manager

February 4, 1999

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